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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/518,892

06/22/2005

Herbert Faehrrolfes

040621

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04/16/2009

BUCHANAN INGERSOLL & ROONEY PC

P.O. BOX 1404

ALEXANDRIA, VA 22313-1404

EXAMINER

HONG, JOHN C

ART UNIT

PAPER NUMBER

3726

NOTIFICATION DATE

DELIVERY MODE

04/16/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/518,892	<b>Applicant(s)</b> FAEHRROLFES ET AL.	
	<b>Examiner</b> JOHN C. HONG	<b>Art Unit</b> 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-65,67 and 68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-29,31-65,67 and 68 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/23/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. The disclosure is objected to because of the following informalities: Using claim numbers in the specification is not proper.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21-23,25 and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by JP59042135.

‘135 discloses : Regarding Claim(s) 21, a continuous method for shaping a metallic fiat material (1) to give a metallic wave profile (Fig. 2), comprising: - passing through said flat material between two meshing tooth systems of two rotating, toothed rolls (5,7), said rolls being provided with a continuously adjustable center distance between each other, and with a continuously adjustable mutual rotation position, - adjusting(Abstract; Figs 1,2,6,10) said center distance before or during said passing through of said flat material (16) for setting a desired profile height of said wave profile, and - adjusting a flank clearance between said meshing tooth systems before or during said passing through of said flat material by relative rotation with respect to one another of said rolls for presetting a profile cross-section of said wave profile; Regarding Claim(s) 22, the metallic flat material comprises a metal plate, a metal sheet, a metal strip or a combination of these; Regarding Claim(s) 23,25, the profile cross- section of said

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wave profile is symmetrical and sinusoidal; Regarding Claim(s) 37, Device for continuous shaping of a metallic flat material to give a metallic wave profile, comprising: - two rotary, toothed rolls provided with meshing tooth systems, said meshing tooth systems being provided for passing through said flat material to be shaped between, means for' continuously adjusting a center distance between said rolls for setting a profile height of said wave profile, and - means for' adjusting a flank clearance between said meshing tooth systems by continuously adjusting a mutual rotation position of said rolls for' modifying a profile cross-section of said wave profile; Regarding Claim(s) 38, the metallic flat material comprises a metal plate, a metal sheet, a metal strip or a combination of these; and Regarding Claim(s) 39, the rotary, toothed rolls are crowned (Abstract).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 52-65,67 and 68 rejected under 35 U.S.C. 103(a) as being unpatentable over JP59042135 in view of Schertler (U.S. Patent 4461665).

‘135 teach the limitation except :Regarding Claim(s) 52,53 a composite material, comprising: applying a second flat material to said profile elevations of said wavy flat material on a first side of said wavy flat material, and - firmly joining said second flat material to said wavy flat material; and applying a third flat material to said profile elevations of said wavy flat

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material on a second side of said wavy flat material, and - firmly joining said third flat material to said wavy flat material.

Schertler teaches the steps of applying a second flat material to said profile elevations of said wavy flat material on a first side of said wavy flat material, and - firmly joining said second flat material (58) to said wavy flat material; applying a third flat material to said profile elevations of said wavy flat material on a second side of said wavy flat material, and - firmly joining said third flat material to said wavy flat material; and applying a third flat material (60) to said profile elevations of said wavy flat material on a second side of said wavy flat material, and - firmly joining said third flat material to said wavy flat material. (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to employ the steps of Scherter to the method of '135 so as to increase the strength of the wavy profiled material.

Schertler teaches further limitations of claims 54-65,67 and 68.

Especially the products of these wavy profiled flat material in claims 63-65,67 and 68 are well known in the art (EP0939176).

6. Claims 24,26-29, 40-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP59042135 in view of Schertler (U.S. Patent 4461665).

'135 teach the limitation except the structures of the rotary toothed roll, but in Claim 40, the centerline average surface roughness in a range of 0.01  $\mu\text{m}$  to 6.5  $\mu\text{m}$ , this is a design choice. and the shapes of the toothed rolls in claims 24,26-29, 41-51 are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to

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utilize the known method on the toothed rolls of '135/Schertler so s to produce the wavy profiled material in various shapes.

*Allowable Subject Matter*

7. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN C. HONG whose telephone number is 571-272-4529. The examiner can normally be reached on M-F 9:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID BRYANT can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN C HONG/  
Primary Examiner, Art Unit 3726

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